

What is claimed is:

1. A method of quantitatively evaluating alternatives to check-out operations using simulation model, comprising:

inputting parameter values describing check-out operations into the simulation model;

5 running the simulation model; and
outputting results from the simulation model.

2. The method of claim 1, wherein the input parameters are listed in a data input dictionary used to define the parameters used in the simulation model.

3. The method of claim 1, wherein the simulation model includes one of a transaction process at two front facing check stands, a transaction process at two back-to-back check stands and a transaction process at two front facing check stands for fast-track customers.

4. The method of claim 1, wherein the check out operations include check stand designs, transaction procedures and lane configurations.

5. The method of claim 1, wherein the running step is performed in either an unlimited arrival mode and a limited arrival mode.

6. The method of claim 1, wherein the simulation model simulates two lane models using parameters representing the following events: pre-itemization, itemization, finalization, bagging and intervention.

7. The method of claim 1, wherein the simulation model represents front-end operations of a check out process.

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11. The method of claim 10, wherein the resources include a number and type of check-stands and belt size.

13. The method of claim 12, wherein the parameters that control the workload include a number of customer arrivals and customer basket sizes.

15. The method of claim 9, wherein the transaction itemization parameters are scalar values.

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24. The method of claim 23, wherein the front-end model results include: all measures; baggers; cashiers; regular lanes; fast-track lanes; self-

25. The method of claim 23, wherein the two lane model results include: all measures; customer; cashier; lane; and bagger.

26. The method of claim 23, wherein the performance measures include an average, standard error, a minimum and a maximum value for each performance measurement.